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Walden University

College of Health Sciences

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Darla P. Hardy

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the review committee have been made.

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Walden University

2019

Abstract

Developing a Clinical Practice Guideline for Improving Communication During
Transitions of Care

by

Darla Hardy

MHA, Walden University, 2011

MSN, Walden University, 2008

Project Submitted in Partial Fulfillment
of the Requirements for the Degree of
Doctor of Nursing Practice

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May 2019

Abstract

Transition of care refers to the movement of patients between health care settings; it occurs each time patients move between providers within the same setting or between settings based on the patient's acute or chronic health care needs. Care transition includes the efficient and accurate exchange of information needed to provide high-quality continuity of care. A rural community hospital in the northeastern region of the United States has a skilled nursing facility and an acute care hospital on one campus. This project focused on the development of a clinical practice guideline (CPG) for the hospital to improve communication during transitions of care. The Iowa model of evidence-based practice informed the development of the guideline. A project team developed the CPG. Five multidisciplinary experts reviewed the CPG using the appraisal of guidelines for research and evaluation (AGREE II) evaluative tool. Results for the 6 domains of the AGREE II tool showed experts' agreement greater than 90% with the guideline as developed. The creation of a CPG to improve communication during care transition could benefit nurses with improved clinical decision making and patients with improved outcomes. The CPG could impact social change by supporting the application of the principles of evidence-based nursing practice, which could result in improved care and patient outcomes.

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Dedication

This project is dedicated to my family who have supported me during my journey from an associate-degree registered nurse to one with the terminal degree of doctor of nursing practice. Significant time has been sacrificed by every member of my family to allow me the time to complete this educational journey. Without them, this would not have been possible. I want to extend a special dedication to my father who always had faith in my ability and knew I could complete this journey. Unfortunately, he passed away during this project; however, he is always in my thoughts.

Acknowledgments

I would like to thank the members of my DNP project committee (Dr. Marisa Wilson, chair; Dr. Deborah Lewis, committee member; and Dr. Tracy Andrews, URR) who provided guidance through their expert knowledge of clinical practice and project process. Their assistance with this process made it a positive experience and encouraged me to continue on to reach the goal of becoming a DNP-prepared executive nurse.

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Section 1: Introduction

Introduction

For several years, health care experts have raised concerns about the underlying structure for healthcare delivery in the United States and how it affects patient safety, health outcomes, and costs. In 2001 the Institute of Medicine (IOM) published *Crossing the Quality Chasm* describing the U.S. healthcare system as poorly organized with layers of bewildering processes promoting ineffective communication that was viewed as wasteful (IOM, 2001). More recently, a safety culture survey conducted by the Agency for Healthcare Research and Quality (AHRQ) revealed that more than 40% of U.S. hospitals reported that the problematic exchange of information between providers contributed to medical errors and adverse patient outcomes (as cited in National Transitions of Care Coalition [NTOCC], 2010). This problematic exchange can lead to duplicate testing, medication errors requiring increased monitoring, and delays in diagnosing medical problems leading to an overall increased length of stay along with increased healthcare cost and readmission rates (NTOCC, 2010). According to NTOCC, 21% of hospitalized patients are discharged to a long-term care or skilled facility and approximately 25% of Medicare-skilled residents require readmission. High readmission rates have negative implications for patients, facilities, and the U.S. healthcare system, more broadly.

NTOCC reports that by the year 2020, 125 million people in the United States will experience a chronic condition requiring the services of several providers. In 2003, between 50% and 70% of Medicare patients admitted for acute care services received care from an average of 10 providers during their stay (NTOCC, 2010). It is during these transitions that

ineffective, nonstandardized processes can contribute to adverse patient outcomes due to unintentional medical errors (Clark, Doyle, & Duco, 2012).

The dynamic nature of healthcare produces many challenges for clinical leaders regarding realizing and maintaining patient safety along with delivering high-quality care throughout the healthcare continuum. One of these challenges includes ensuring that effective communication between caregivers is achieved that promotes a smooth transition from one healthcare setting to another. The National Association of Clinical Nurse Specialists defined a transition in care as the “care involved when a patient/client leaves one care setting and moves to another” (NACNS, 2019, p.1). This transition of care occurs each time a patient moves between healthcare providers within the same setting or between settings as required based on the patient’s acute or chronic care needs.

Like many healthcare organizations, the practicum site has experienced challenges with transitions of care and ineffective communication between healthcare providers. Staff voiced concerns to me during rounding in the emergency department (ED), on the inpatient units, and in town hall meetings I had with the skilled facility staff. In further meetings with the ED and inpatient staff, I learned that neither the ED acute care nursing staff nor the inpatient acute care nursing staff believed that they received adequate information for caring for patients. The ED staff stated that they did not receive necessary information from LTC/Skilled facilities when the patient arrived while the inpatient acute care nursing staff stated they did not receive the information they needed to adequately care for the patient when the patient arrived from the ED. During the town hall meetings, the LTC/Skilled facility nursing staff stated that they were also not initially receiving information to create and maintain a continuum of care for the patient

either upon discharge from the acute care inpatient unit or return from the ED. This lack of effective communication during transitions contributed to delays in care and inadequate treatment plans once the patient/resident arrived at the destination, according to the staff with whom I spoke. Based on this feedback, I created a clinical practice guideline (CPG) focusing on improving communication between healthcare providers during transitions of care between acute care settings and the LTC/Skilled facilities on the campus as my evidence-based project (EBP).

Problem Statement

The problem identified for this EBP project was the lack of an organizational guideline at the project site ensuring that appropriate and meaningful information was relayed between healthcare providers during transitions of care. While many factors may contribute to ineffective transitions in care, the primary root cause identified at the project site was a breakdown in effective communication due to the lack of a CPG addressing expected and required information exchange during transitions of care. The ineffective communication could have been the unintended result of several contributing factors to include lack of standardized processes and/or procedures, time limitations, differing communication expectations, and a lack of an organizational patient safety culture (Clark et al., 2012). High quality, effective communication during transitions is a complex process and as such requires continuous evaluation and process improvement to ensure patient safety. The potential for patient harm is introduced when incomplete or inaccurate information is relayed regarding the required care needed for a patient. The impact of ineffective communication on patient care is significant enough that The Joint Commission listed effective communication as a National Patient Safety Goal and published a Sentinel Event Alert on the issue (The Joint Commission, 2017).

Purpose

The purpose of this project was to develop an evidence-based, theory-supported CPG focused on supporting transitions between healthcare settings; the overall goal was to improve the quality of care delivered by improving the communication between caregivers during transitions of care. The CPG is primarily focused on transitions to and from the LTC/skilled facilities on campus. This best practice guideline promotes continuity of care utilizing standardized processes to facilitate safe and effective transitions.

Nature of the Doctoral Project

For this evidence-based project, I sought to develop a CPG to facilitate information exchange during care transitions. To develop the guideline, I completed a thorough review of existing sources of information so that I could have a better understanding of the most current knowledge and information on the topic of interest for the identified project. The practicum site is a rural community hospital licensed for 47 beds with two attached long term care facilities with skilled nursing capabilities accounting for over 200 resident beds. The project site experiences multiple transitions of care daily to include admissions from and discharges to both of the long term care facilities on campus.

I conducted an evidence-based literature search using the databases available through the Walden University Library along with the Cochrane Systematic Review database. I appraised the literature utilizing the GRADE approach (BMJ Best Practice, 2018) for evaluating the quality of evidence. I created a literature review summary of findings table as previously described (see Appendix A). The CPG was developed and a panel of experts was convened to evaluate the guideline utilizing the AGREE II instrument (AGREE II Instrument, 2013) to validate content

(see Appendix D). The guideline was revised as it applied to nursing care practices based on feedback received by the expert panel and a final CPG was presented to the key clinical stakeholders for possible future implementation (see Appendix B).

Significance

Care transitions occur between many types of healthcare settings. Patients and residents depend on clinical staff to ensure that care plan details and patient preferences are effectively communicated and managed along the healthcare continuum. Use of a standardized approach as set forth in a CPG may assure that all relevant information regarding treatment plan, patient preference, and patient need is communicated between care providers. The development of a CPG with the focus on improving communication between healthcare providers during transitions of care could improve patient safety and satisfaction if implemented. Research has shown that developing and implementing CPGs closes the gap between clinician knowledge and scientific evidence resulting in decreased healthcare cost and improved patient outcomes (Ahn & Kim, 2011).

This project also emphasizes Essentials I, II, III, and VI of the American Association of Colleges of Nursing (AACN) Essentials of Doctoral Education for Advance Nursing Practice published in 2006. Essential I: Scientific Underpinning for Practice prepares the DNP graduate to use multidisciplinary theories and concepts to develop and evaluate new nursing practices (AACN, 2006). Essential II: Organizational and Systems Leadership for Quality Improvement and Systems Thinking prepares the DNP graduate to lead organizational initiatives that focus on improving both patient safety and the quality of care delivered to meet the needs of the community served (AACN, 2006). Essential III: Clinical Scholarship and Analytical Methods

for Evidence-Based Practice, prepares the DNP graduate to critically analyze current relevant literature resulting in the creation, implementation, and evaluation of quality improvement initiatives focused on improving healthcare outcomes (AACN, 2006). Essential VI: Inter-professional Collaboration for Improving Patient and Population Health Outcomes prepares the DNP graduate to lead inter-professional teams in the creation of scholarly products to include clinical practice guidelines (AACN, 2006).

Summary

Transitions in care often involve multiple healthcare providers who are expected to effectively communicate the needs of the patient. Research has shown that quality of care and patient safety are being compromised due to either ineffective communication or inadequate transfer of information during transitions. Standardizing the exchange of information as patients and residents transition from one health care setting to another has the potential to reduce errors and improve outcomes. In section I a general overview of the identified problem and proposed solution was discussed.

Section 2: Background and Context

Introduction

Clinical Practice Guideline development impacts social change by directly influencing how healthcare providers practice patient care. CPG's provide an evidence-based framework for clinicians to reference during decision-making regarding their individual clinical practice.

Referencing the most current clinical data and using that data to educate and support nurses to apply the principles of EBP can have far reaching effects on professional development which will result in improved quality of care delivered and improved patient outcomes.

The Institute of Medicine Committee on Standards for Developing Trustworthy Clinical Practice Guidelines has newly redefined CPGs as “statements that include recommendations intended to optimize patient care that are informed by a systematic review of evidence and an assessment of the benefits and harms of alternative care options” (as cited in National Center for Biotechnology Information [NCBI], 2011, p. 4). In order for a CPG to be considered trustworthy it must meet specific criteria to include the following: a systematic review of current evidence, collaboration of a multidisciplinary panel of experts that considers the groups and/or subgroups affected, lack of bias or conflict of interest, provision of ratings for the quality of the evidence reviewed, and revision when new evidence is introduced (as cited in NCBI, 2011). This new definition emphasizes the systematic review as an essential characteristic of CPG's and highlights the difference between CPG's and other methods of clinical guidance such as expert advice and position statements.

Concepts, Models, and Theories

EBP involves utilizing a systematic decision-making approach to problem solving in which the best evidence from research is translated into nursing practice. While EBP models help nurses implement evidence into practice, there is not one specific model that works for everyone or is guaranteed to produce results. Organizational leaders must use a systematic process to select the best model that will work within their organization taking culture and education levels into consideration during the selection process (Gawlinski & Rutledge, 2008).

I collaborated with fellow regional executive nursing leadership to consider the demographics of the patient population, education levels of the clinical staff, the culture of the organization, and the resource availability of the organization, which had been integrated into a larger healthcare system within the past 18 months. I then determined that the Iowa Model (Titler et al., 2001) of EBP would be the best method to utilize for this project. Permission to utilize the Iowa Model was obtained via e-mail (see Appendix E).

The Iowa Model of EBP includes the following seven steps:

1. Identify problem and select the topic of focus (Titler et al., 2001).
2. Form a team of key stakeholders (Titler et al., 2001).
3. Complete an evidence based literature search (Titler et al., 2001).
4. Critique and synthesize the evidence (Titler et al., 2001).
5. Develop the EBP standard guideline (Titler et al., 2001).
6. Institute the new clinical practice change (Titler et al., 2001).
7. Evaluate the change, and monitor the outcomes (Titler et al., 2001).

Findings from the completed project can be disseminated via presentations and publishing (see Titler et al., 2001). For this project I used the first five steps of the Iowa Model.

The Iowa Model provides a roadmap for creating a nursing culture of high quality care delivery. Educating and supporting nurses to apply the principles of EBP can have widespread effects on professional development that contribute to improved patient outcomes. The Iowa model highlights the importance of key stakeholders within the system to include the patient, the provider, and the infrastructure with a focus on research to guide practice decisions (Dontje, 2007). It provides a guide for clinical decision-making from both the organizational and practitioner perspectives to promote excellence in outcomes.

Definitions of Terms

I use the following terms throughout this project:

Acute care: A term encompassing the provision of care to improve health whose effectiveness depends on rapid intervention (World Health Organization, 2013).

Agency for Healthcare Research and Quality (AHRQ): An organization that invests in research and evidence to make healthcare safer and improve quality (AHRQ, 2015).

Clinical nurse specialist: Expert clinicians with advanced education and training in a specialized area of nursing practice who work in a wide variety of healthcare settings (National Association of Clinical Nurse Specialists, 2018).

Clinical practice guideline: Statements that include recommendations intended to optimize patient care and that are informed by a systematic review of evidence and an assessment of the benefits and harms of alternative care options (IOM, 2011)

Evidence-based practice: The conscientious use of current best evidence in making decisions about patient care (Academy of Medical-Surgical Nurses, 2018).

Long-term care: The provision of a variety of services to meet specific needs for a relatively long period of time (National Institute on Aging, 2017).

Skilled nursing facility: A facility that provides the staff and equipment to administer skilled nursing care, rehabilitation services or other health care services on a temporary basis (Family Assets, 2018).

Transition of care: The movement of a patient from one setting of care to another. Settings of care may include hospitals, ambulatory primary care practices, ambulatory specialty care practices, long-term care facilities, home health, and rehabilitation facilities (Centers for Medicare and Medicaid Services [CMS], 2014).

Relevance to Nursing Practice

The National Transitions of Care Coalition identified fragmented systems as a barrier to delivering efficient health care relaying that increased communication between patients and providers, and more efficient, patient-centered care can reduce harm while making healthcare more reliable and accessible (NTOCC, 2010). The creation of a CPG focused on improving communication during transitions of care at the practicum site allowed clinical practice nurses to affect positive change within the organization regarding patient outcomes via critical thinking along with top of license practice. Improving communication during care transitions will have far reaching effects to include improved patient safety and quality of care delivery while contributing to overall decreased healthcare cost. This scholars' project also supports the

Walden University mission of social change via the spirit of continuous improvement that impacts the safety and quality of healthcare delivery (Walden, 2020).

Local Background and Context

The setting for this doctoral project was a rural community hospital in Central Pennsylvania that is part of a larger healthcare system. It is the sole provider of acute care in the county with a population of just under 40,000, a poverty rate of 17.3%, median age of 38, and caucasion as the predominate ethnic composition at 95% (DATAUSA, 2019). The hospital is licensed for 47 beds with an average daily census of 12 inpatients. It experienced the following approximate volumes during the year 2018: 12,500 ED visits, 3,700 inpatient patient days, and 2,500 surgical cases. On an average day staff received five admissions from the ED and transferred three patients to LTC or Skilled facilities. The creation of a CPG at the practicum site has the potential to impact the care of every admission and transfer to/from the skilled facilities that total over 200 resident beds on the campus if implemented.

Role of the DNP Student

I have been employed by the project site for just under 3 years as the chief nurse responsible for daily operations. In that role, I am familiar with the associated challenges nursing staff encounter when receiving or transferring patients/residents to the LTC/Skilled facilities on campus. I have a good working relationship with the multidisciplinary team that was selected to participate in the development of the CPG. In my role, I was able to ensure there was time allotted for the CPG development team members to collaborate on this project. I am also keenly aware of the challenges facing readmission rates, patient outcomes and overall healthcare cost for the project site.

Role of the Project Team

A multidisciplinary panel of experts consisting of acute and long-term/skilled care clinical and executive leadership, bedside care providers, and an advanced practice geriatric nurse collaborated to assess the literature used to develop the CPG (see Appendices A and B, respectively, for the literature review matrix and CPG). They reviewed and validated the CPG using the AGREE II tool (see Appendix C) and offered suggestions for improvement should the organization decide to implement these in the future. (See Appendix D for the ratings.) Key stakeholders in the organization including executive-level care transition personnel were involved in the evaluation of the CPG allowing them to become familiar with the CPG and consider future implementation if desired.

CPG Development Process

A multidisciplinary team of clinicians collaborated to evaluate the available evidence and assist in the development of the CPG. As Shekelle, Woolf, Eccles, and Grimshaw (1999) noted, the ideal number of guideline development participants is at least six but no more than 12 members as too few members are not effective and too many members makes group functioning difficult. Also, a multidisciplinary group most likely will reach a different but possibly better conclusion versus a single specialty group that may be biased (Shekelle et al., 1999).

I provided anonymity to the CPG development team members. Team members included members of groups whose activities were affected by the CPG and thus had the opportunity to have input into the process. For this project, the targeted team members included those who are involved with bedside care delivery along with transitions of care on a daily basis. Hodges and Videto (2011) stated that to develop a sense of ownership that will contribute to successful usage

the target population should be involved with the development of the practice guideline. The multidisciplinary team included the following participants: one inpatient nurse, two ED nurses, and one skilled facility staff who is a registered nurse; one house supervisor; one nursing home administrator; the hospital RN case manager; and the director of nursing from one of the attached skilled facilities. Staff pharmacy had limited availability and participated minimally via e-mail in the CPG development. The panel included members with differing education levels from associate degree through master's degree along with varying degrees of experience.

After receiving approval for the project via the Walden University Institutional Review Board, I invited the CPG development team members to the initial meeting. I identified team members by meeting with each one individually to describe the project and to ensure that they would have the time to participate and would feel comfortable working on this project. The roles for the team included group leader and group members. All members were encouraged to participate and offer recommendations for the practice guideline based on their working knowledge and the available evidence-based literature. Serving as the group leader, I stimulated the discussion, striving not to influence the group based on my own opinion.

The team was scheduled to meet four times over a span of 12 weeks to develop the practice guideline utilizing the available evidence. To ensure meetings occurred, I sent Outlook calendar invites to each participant and secured a quiet meeting place to avoid interruptions. During this process there were conflicting schedules requiring meetings to be rescheduled; this resulted in extending the time for CPG development to over 6 months. During this process there was also turnover in nursing leadership in the acute care environment and both the LTC/Skilled facilities also contributing to delays in developing the CPG as new members were integrated into

the committee. Meetings occurred until the final guideline was created and agreed upon by the CPG development team members. Due to these delays this process took just over 6 months rather than the anticipated 4 months.

CPG Evaluation Process

A multidisciplinary panel of experts collaborated to evaluate the CPG developed by the previous team of clinicians. I also provided anonymity to the CPG evaluation team members who included clinical experts on the subject matter of transitions of care and geriatric care management. The project site is part of a large healthcare system that has placed focus on care transitions and senior communities both regionally and throughout the state. Due to this focus, I had access to senior level executives who specialize in those areas. The regional system also provides geriatric nurse practitioners for local skilled facilities whom I also had access to for CPG evaluation. For this part of the project, the targeted team members included the following participants: the regional case manager, the regional senior communities' executive director, the regional director of nursing for senior communities, the regional vice president for care transitions, and an acute care gerontology nurse practitioner. The members of the CPG evaluation panel all had a BSN degree or higher education level with at least 2 years of experience in their specialty area.

Guideline Evaluation

Studies have shown that rigorously developed guidelines translate complex research findings into practice and once validated and placed into practice can improve patient care outcomes (Seiring et al., 2013). In 2003 a team of guideline developers created the AGREE instrument (AGREE II Instrument, 2013). It was revised in 2009 as the AGREE II tool and is

currently the most commonly applied CPG appraisal tool with documented validity (Hoffmann-Eber et al., 2018). The tool includes the appraisal of 23 criteria that are organized within six domains. It also includes two overall global rating assessment questions.

I individually invited the CPG evaluation team members to participate after speaking with each one individually to describe the project, ensure they had time to participate, and ensure they felt comfortable validating the guideline using an evidence-based CPG evaluation tool. The team members were located in different offices and locations around the region making it difficult to coordinate an in-person meeting to discuss the project. For this reason, I attempted to coordinate a conference call to introduce the project, review the AGREE II tool, and answer any other questions. After much effort, due to the limited schedule availability of the executive team members, I decided that communication via individual phone calls and e-mails was the best course of action to achieve the goal of CPG evaluation in a timely fashion.

I spoke to all evaluation team members except one to review the process and AGREE II tool. Each person asked questions regarding the literature search and findings along with references used to create the guideline. I contacted the team member that was unavailable by telephone via e-mail. This team member acknowledged receipt of the information with no clarification needed.

After initial contact, a time frame of 3 weeks was agreed upon for each team member to evaluate the guideline, complete the appraisal tool and return their comments or suggestions to this scholar via email. The AGREE II tool and disclosure form was emailed to each CPG evaluation team member with the due date listed for reference. After three weeks, all but one of the CPG evaluations were received. Due to unanticipated circumstances, this team member

needed a one week extension for CPG evaluation completion. At the end of the fourth week, the final evaluation was received via email.

Ethical Considerations

This project falls under the blanket ethics preapproval for CPG development. This scholar followed the instructions and utilized the preapproved Site Agreement and Disclosure to Expert Panelist Form for anonymous questionnaires or participation in the project. The participants in the CPG creation and review were provided privacy and their data was kept secure in order to participate in the project. No personal or professional information regarding any participant was revealed.

As described by Fulda (2014), the developers of CPG's must ensure that autonomy, justice, beneficence and non-maleficence are respected in order to create a trustworthy guideline. The CPG developers ensured that comprehensive, unbiased evidence was utilized to create the guideline. Usage of a multidisciplinary team for group composition decreased the potential for professional bias which could contribute an unreliable guideline (Rogers, 2002).

Summary

Clinical providers want to ensure that their patients/residents receive the highest quality of care delivery. In order to achieve this evidence-based research must be used to create standardized practice guidelines. While research shows the creation and implementation of CPGs is increasing, the importance of a rigorous, systematic process for validation cannot be understated. Evidence-based CPG development and implementation highlights the importance of linking scientific research to bedside clinical practice (Turner, Misso, Harris, & Green, 2008).

Section 3: Collection and Analysis of Evidence

Introduction

The purpose of this project was to develop a CPG focused on improving communications amongst caregivers during transitions of care. CPGs provide a foundation for healthcare providers to reference to ensure they have the most current EBP to provide safe care to patients. I developed the CPG using the first five steps of the IOWA model (Titler et al., 2001) for EBP implementation. The resulting CPG is comprehensive but easy to reference for everyday clinical practice and could easily be placed into practice based on the feedback from the expert appraisers.

Practice-Focused Question

The lack of an organizational guideline to ensure that appropriate and meaningful information was relayed between healthcare providers during transitions of care was the identified gap at the project site. The question for this project was, Will evidence and theory support the development of a CPG for care transitions? The PICO question was the following: For patients discharged or transferred across healthcare settings, will a synthesis of evidence and application of theory support the development and approval of a CPG to improve communication? There was no comparison intervention for this project.

Sources of Evidence

A literature review is a topic-focused, systematic method of identifying, interpreting, and appraising evidence-based research produced by other scholars and practitioners. The goal was to retrieve the maximum amount of relevant information for evaluation (Lambert & Lambert, 2010). A well-constructed search strategy was essential to obtain the information needed for the

systematic review of literature for the designated project. The intent was to locate the best evidence from all sources to create a comprehensive body of evidence that answered the clinical questions while also identifying gaps where consensus was needed. The literature review for this project included searching for information related to the following:

- transitions of care between healthcare environments,
- handoff communication between care providers,
- the IOWA model (Titler et al., 2001) of EBP implementation,
- CPG creation and implementation, and
- the AGREE II model (AGREE II Instrument, 2013) for CPG evaluation.

I utilized appropriate search filters to narrow results to those most relevant to the topics of interest previously noted. Spelling variations were included if appropriate to open the search to international studies as well. In reviewing the literature, I also used well-respected healthcare websites such as the AHRQ, Institute for Healthcare Improvement, CMS, and TJC as resources because of the reputation of these agencies for their work in addressing safe care transitions.

I conducted comprehensive literature search using databases available in the Walden University Library including MEDLINE, CINAHL Plus, Ovid Nursing, ProQuest, Google Search, PubMed, and the Cochrane Database of Systematic Reviews was completed. I used the Boolean search strings *and/or* to expand the search for available literature. The following terms were used in the literature search: *care transitions*, *handoff communication*, *IOWA model*, *Clinical Practice Guideline creation*, and *AGREE II model*. Although the focus was on research published in English within the past 10 years, I included both current and classic research works for evaluation in the literature search. The searches of the selected topics retrieved multiple

articles per subject. Thirty three articles were reviewed and 15 were selected including a Joint Commission Sentinel Event Alert for the literature review synthesis (see Appendix A).

Analysis and Synthesis

A critical appraisal of the available literature provided the most current information related to the identified topics of interest. This process involved skimming the sources and comprehending the content. I quickly reviewed each item to determine if it addressed the topic of interest and came from a reputable, peer-reviewed source. The process also included reviewing the title, abstract, and summary section to determine if the content was relevant.

I then read full articles to obtain a thorough understanding of the content of the document with a focus on the purpose of the study to determine its relevance for the literature search. The final step was to analyze the source to determine its value to the project. The analysis of each piece of literature included reviewing and comparing each source including background information, study objectives, research method, limitations, conclusions, and references.

Search results included experimental studies, systematic reviews, peer-reviewed articles by content experts, guideline development manuals, and one international CPG. Review of several sources highlighted the conclusion by authors that effective communication was the key to ensuring a smooth transition of care (Jackson et al, 2016). Unfortunately, not all transitions are smooth leading to higher readmission rates, higher cost and adverse events (TJC, 2012).

In their systematic review, Luu et al. (2015) evaluated communication between providers during transitions from outpatient to acute care and its impact on quality of care. Findings revealed that there is little research on the subject of outpatient to inpatient transitions. However,

effective communication to reduce medical errors and increase patient satisfaction was a key contributor to achieving effective care transitions (Luu et al., 2015).

Similarly, Jusea et al. (2017) completed a retrospective chart review to examine the type of information that accompanies patients when transferring from acute care to skilled nursing facilities and to make recommendations for improvement if standards were not met. The conceptual framework utilized for the chart review was Coleman's care transition model (Coleman, 2003). The Jusea et al. study was a retrospective chart audit in one skilled nursing facility. An audit checklist was created and 155 charts were reviewed. Of the 155 charts reviewed, [100] (65%) were missing at least one of the identified elements required for safe and effective transitions of care (Jusea et al., 2017). The findings of the study supported the need for improved communication between care settings and transition care models.

Last, Radhakrishnan et al. (2018) completed a case report of a collaborative program created for use in a seven-hospital health care system for transitions in care. Their findings revealed that readmission rates were reduced when the pilot program for transitions of care was introduced (Radhakrishnan et al., 2018). The pilot program was titled Transitions Across Care Settings and also based on the Coleman care transitions model (Radhakrishnan, 2018).

Summary

CPGs aim to improve the quality and effectiveness of care delivery while decreasing variability by providing evidence based standardization. CPGs bridge the gap between best practice and current bedside provision of care. Historically, CPG development was based on expert opinion with minimal research involved. However, extensive research has been

completed over the last several years regarding CPG creation resulting in a shift from opinion-based to evidence-based methodologies (Kredo et al, 2016).

Section 4: Findings and Recommendations

Introduction

Transitions between healthcare settings are highly complex and have been identified as a potential cause for medical errors. This is particularly true with the geriatric population who often see multiple providers with each healthcare incident due to comorbid conditions and who also typically experience multiple transfers between facilities resulting in an increased number of information exchanges (Yeaman, Ko, & Castillo, 2015). These errors can be prevented with clear and effective information exchange during each transition of care, however.

The purpose of this project was to develop an evidence-based CPG to improve communication between caregivers during transitions of care. The focus of this project was on transitions between acute and LTC/Skilled facilities on the same rural community hospital campus. The project site is a 47 bed acute care hospital that has two separate LTC/Skilled facilities attached for a total of just over 200 resident beds on campus. There are frequent transitions between the acute and LTC/Skilled facilities creating opportunities for ineffective exchange of information that could affect patient safety and outcomes. The project site also lacked a standardized, structured framework or protocol for transitional communication resulting in uncoordinated and segmented information exchange.

Other factors to consider regarding the transition of care for this project were differing health information technology platforms between organizations that hinder electronic information exchange and the lack of a specified software design that is unique to the needs of the LTC/Skilled population. This was the case with the project site as the acute care electronic medical record is a Cerner Soarian product and the LTC/Skilled facilities utilize the

PointClickCare product. These software platforms do not communicate freely or share information.

There are also financial implications associated with poor exchange of information during transitions of care. An incomplete clinical picture during a transition increases the risk for missed medications and/or treatments which can result in repeat testing and readmissions (Mankusani et al, 2015). CMS has focused on hospital readmission rates as a key indicator of the quality of care provided during the acute care stay and has imposed financial penalties on acute care organizations with high 30-day readmission rates (McIlvennan, Eapen & Allen, 2015). According to a report published in 2013 by the Robert Wood Johnson Foundation, the cost of readmissions among Medicare patients alone was \$26 billion annually, with \$17 billion of that estimated to be preventable (Robert Wood Johnson Foundation, 2013).

I drew from the IOWA model (Titler et al., 2001) of EBP to promote quality of care in designing the project. In developing the guideline, I completed an in-depth search of peer-reviewed literature focusing on transitions of care and hand-off communication. Thirty three articles were reviewed and 15 were selected to reference in developing the guideline, including a Joint Commission Sentinel Event Alert focusing on hand-off communication.

Findings and Implications

In order to assess the validity of the created guideline, the CPG evaluation team appraised the guideline for validity using the AGREE II tool (see Appendix A). I chose expert appraisers with the assistance of the regional chief nursing executive. The executive and I selected five appraisers from teams that were involved with transitioning and/or receiving patients from either acute or LTC/Skilled care. The selected appraisers included the regional vice president of care

transitions, regional vice president of senior communities, regional director of nursing for senior communities, regional case management supervisor, and an acute care/gerontology nurse practitioner who works in a LTC/Skilled facility. Each appraiser received a copy of the CPG, the literature review matrix, the AGREE II tool, and the disclosure form from the Walden University DNP clinical practice development manual. Four of the five appraisers returned the evaluations in the agreed upon time frame; however, one appraiser needed a 1 week extension due to unforeseen circumstances.

The AGREE II tool is currently the most commonly applied CPG appraisal tool to document validity (Hoffmann-Eber et al., 2018). The tool includes 23 criteria to appraise organized within six domains. It also includes two overall global rating assessment questions. Each question is rated on 7-point scale with 1 equating to *strongly disagree* and 7 equating to *strongly agree*. Each domain score is summed by totaling the scores of the individual items and dividing by the maximum possible score and is expressed in a percentage (AGREE II Instrument, 2013). The domain score totals for the evaluation team were, as follows:

- Domain 1, 93%;
- Domain 2, 92%
- Domain 3, 94%;
- Domain 4, 94%;
- Domain 5, 90%;
- Domain 6, 97%; and
- Overall, 91%.

The detailed results of the expert panel evaluation and comments are displayed in Appendix D.

In the sections that follow I will briefly summarize the results of each domain.

Domain 1

Domain 1 of the AGREE II tool addressed the scope and purpose of the guideline with three questions that focused on guideline objectives and the target population for the guideline will serve. The overall score for this domain was 93% which reflects that the experts agreed that the overall objectives of the guideline were met. There were no questions or suggestions for improvement in this domain. Two experts commented that the purpose of the guideline was specifically attained and that the aim of the guideline, target population, and clinical concerns were clearly identified.

Domain 2

Domain 2 of the AGREE II tool addressed stakeholder involvement with three questions that focused on guideline creation participants, target users of the guideline, and whether views and preferences of the target population were taken into consideration. The overall score for this domain was 92% which reflects consensus that stakeholder involvement was appropriate. One panelist rated Item 5 lower stating that patients and families should have been involved with the creation of the guideline. I relayed that interviewing patients and families was beyond the scope of this project to the panelist for clarification. The panelist who rated Item 5 lower could not participate in the telephone conference and was only available by e-mail and had no questions before beginning the evaluation.

Domain 3

Domain 3 of the AGREE II tool addressed the rigour of development with eight questions that focused on the search for evidence and the process used to formulate the guideline recommendations. The overall score for this domain was 94% reflecting that the experts agreed that the challenge to develop this guideline expanded the knowledge base of the creation team and proper processes were followed to ensure a high quality guideline was created. No suggestions were offered in this domain.

Domain 4

Domain 4 of the AGREE II tool addressed the clarity of presentation with three questions that focused on guideline recommendations being specific and identifiable. The overall score for this domain was 94% reflecting a consensus that the guideline presentation was easily understood. One evaluator commented that the guideline presentation was very clear and easy to follow.

Domain 5

Domain 5 of the AGREE II tool addressed the applicability of the guideline with four questions that focused on barriers to implementing the guideline, guidance for integrating it into practice and the process for monitoring and auditing the guideline in the future. The overall score for this domain was 90% which reflects a consensus; however, this was the lowest scoring domain. There were no suggestions offered for improvement and the scores were all sixes and sevens. The information for this domain is covered under the evaluation section of the guideline; however, was general in nature so the organization could determine the best process that would work for them. This scholar speculates that this is why the score is lower.

Domain 6

Domain 6 of the AGREE II tool addressed the editorial independence with two questions that focused on the competing interests and any influence from funding bodies. The overall score for this domain was 97% which was the highest scoring domain. No suggestions or comments were offered for this domain.

Overall Guideline Assessment

All five appraisers completed the overall guideline assessment. The final overall score for the quality of the guideline was 91% with all appraisers stating they would recommend the guideline for use as written. One appraiser from senior communities suggested adding recent bowel movement and fall history within the past 6 months to the guideline. This was added to the essential information that should accompany every transitioning patient/resident section. The same appraiser suggested that physician to physician hand-off should also be addressed. This scholar explained that physician interaction was beyond the scope of this nursing Clinical Practice Guideline. Once explained, the appraiser felt it was an excellent guideline for nursing practice. A second appraiser from senior communities commented that the guideline was comprehensive, practical and research based and could easily be implemented into practice and revised as needed.

Implications

The implications for positive social change for this guideline are far-reaching. If implemented, this CPG could improve communication between caregivers on the project campus during transitions which, in turn, would ensure essential information was shared regarding the health status of a transitioning patient/resident. This would result in decreased medication errors

by ensuring an effective medication reconciliation process was implemented, decreased duplicate testing by reviewing completed consults, testing and treatments and reduce readmissions by ensuring appropriate treatment plans continue after transition. On a small scale, this guideline would impact the project site; however, on a larger scale the guideline could be implemented throughout the system with the focus on the acute care facilities that have LTC/Skilled facilities in their market share area.

Recommendations

I proposed the following recommendation for the project site and the senior community service line. Utilizing the structured framework of the guideline while referencing the essential information area of the guideline, create a standardized transition checklist to reference that can be implemented throughout the campus when a patient/resident experiences a transition of care. If an electronic printed format that captures all information is possible; then nursing informatics assistance will be needed to build the format for printing. This could be a distinct possibility in the near future as during the time transpired for completion of this project, nursing informatics personnel have been assigned to both the acute care and LTC/Skilled facilities on campus.

It is recommended that the standardized checklist be implemented initially on the acute care unit to address any patient transitioning to LTC/Skilled care on the campus. The checklist could be initiated once disposition has been determined during the daily multidisciplinary discharge rounding. A transfer out of acute care to LTC/Skilled care allows ample time to gather all essential information before transition. Secondly, the checklist could be implemented in the LTC/Skilled facilities for transition to acute care. This transfer usually is urgent or emergent

in nature and may not afford the time needed to complete the entire checklist; therefore, a separate checklist may be needed for this type of transition.

For evaluation, it is recommended that a copy of each transition checklist completed be kept and filed for auditing by the acute care unit nursing leadership for compliance. Any identified areas of opportunity should be evaluated for barriers to completion and appropriate re-education completed, if needed, to ensure continued compliance. Standardized auditing should be considered an ongoing performance improvement quality indicator reported on regularly to the appropriate identified organizational committee.

The guideline should be evaluated annually for applicability and usability. If updates are needed, then a multidisciplinary team should be reconvened to evaluate the guideline with changes approved by the directors of nursing from both the acute care area and the LTC/Skilled areas. Readmission data is currently already collected for the acute care area. Once the guideline has been implemented, readmission data could be trended to determine if there is any correlation to the utilization of the guideline and checklist.

Contribution of the Doctoral Project Team

As discussed previously, the IOWA Model of evidenced-based practice to promote quality care was utilized for this project to identify the gap in clinical practice and propose a possible solution to the nursing leadership team and the executive team of the project site. The identified gap was lack of transferred knowledge to the next caregiver when a patient/resident experienced a transition of care. In collaboration with the nursing leadership team, rounding was completed on both the acute care and LTC/Skilled staff. It was realized that there was not a

standardized format to relay information and ensure all applicable information needed to provide optimal care for the patient/resident was transferred to the next caregiver.

Armed with the knowledge obtained from rounding, this scholar reconvened with the nursing leadership team and proposed the creation of a CPG that addressed improving communication during transitions of care. This scholar also discussed the project topic with the vice president for care transitions and the vice president for senior communities. Both executive team members agreed that the topic was applicable to the project site and would be willing to assist with the process if needed.

After determining the project topic applicability, the multidisciplinary team was assembled to review the applicable literature and create the CPG. This scholar was the team leader and each member of the team had an assigned task to complete prior to the next meeting. This project management initially kept the guideline on the expected timeline. However, during this project, schedule conflicts occurred and nursing leadership turnover was experienced which contributed to delays in the completion of the guideline. The new members of leadership had to be on-boarded and briefed on the project and the progress achieved prior to their involvement. While this did cause a delay, this scholar feels as if it was beneficial as both the newly hired nursing unit director and clinician held higher level degrees and offered new perspectives that were incorporated into the guideline.

This scholar believes that the contribution of time and knowledge of each member of the multidisciplinary team, in total, facilitated the creation of a guideline that is applicable to the project site and could be easily implemented.

Strengths and Limitations of the Project

Within the nursing profession, it is expected and assumed that nurses will knowledgeably incorporate new information from research findings into nursing practice. However, there are challenges and limitations when translating the best evidence into clinical practice such as the limited availability of CPG's. Bridging that gap depends on an organization's ability to embrace and implement current evidence through an effective change management process.

Assumptions for this project included the following:

- The team assembled to address this problem had appropriate knowledge and experience in transitions of care to assess the CPG.
- The clinical staff would realize that there was an issue that needed to be addressed and resolved and that they will reference the CPG in the future.
- The clinical staff will implement the recommendations into their daily practice if it is approved by key clinical leadership.

Limitations for this project included the following:

- Because the CPG was developed specifically for the practicum, it is not generalizable in nature.
- The team members on the expert panel had a limited amount of time for project participation.
- The team assembled to assist with creating the CPG experienced a change in members due to leadership turnover within the organization creating a delay as new members became knowledgeable of the process.

The strengths of this project include the commitment of the multidisciplinary team of the project site to own an identified gap in practice and promise to work on the solution. The literature search and review was extensive and systematic focusing on specific evidence related to transitions of care. While there is significant literature available, there are few actual practice guidelines that address the topic; however, the executive leadership agreed that the topic was an ongoing hot topic in healthcare and important to be addressed. The engagement and approval of the executive team ensured that time would be allotted for the multidisciplinary team to convene and collaborate on the solution.

The limitations of the project include the fact that the guideline was developed specifically for the project site. While the guideline is general in nature, other project sites will need to determine their own processes for addressing the specific sections of the guideline. This would require time on their part to evaluate the guideline and determine their course of action.

Section 5: Dissemination Plan

For this scholarly project I developed a CPG specific to the project site. An expert panel evaluated the guidelines using the AGREE II tool and found it to be appropriate for implementation at the project site. I presented the guideline to the executive leadership team for both the acute care facility and one of the two LTC/Skilled facilities on campus. Should the decision be made to implement the guideline, I plan to assist with putting it into practice in the future.

Other opportunities to disseminate the information include submitting it to the healthcare system quality improvement team. This would allow the information to be disseminated to other facilities in the system across the state with leaders of each facility determining whether or not it would be applicable for implementation at their specific organization. Also, as a member of the statewide patient safety authority, I am able to share the guideline with the leadership at the patient safety authority who could disseminate to all healthcare organizations throughout the state expanding the reach outside the healthcare system. A final approach would include submitting the project manuscript for publication to an appropriate nursing journal which would broaden the audience to nationwide.

Analysis of Self

Scholar

I experienced considerable personal and professional growth during this degree process and project completion. Completing this project study provided the opportunity to work with multidisciplinary team members both internal and external to the project site. I learned the process of an exhaustive literature search to ensure one is utilizing the most current evidence

available for clinical implementation. This experience has provided me with the knowledge of how to create practice guidelines that once implemented can have a positive impact on patient/resident outcomes. As a DNP-prepared scholar, I plan to continue creating guidelines for use within the healthcare region and/or system that address identified gaps in clinical practice. The use of the IOWA model (Titler et al., 2001) also provided a framework for identification of problem- and knowledge-focused clinical challenges that may be considered a priority for an organization to address. I believe that the IOWA framework will be a staple of my efforts to promote quality care delivery in the future.

Practitioner

My growth as a practitioner continued throughout the journey to complete the DNP degree. Scholarly practice is driven by commitment and personal values and is grounded in research and knowledge. As a scholar-practitioner, I am committed to being an agent of change who impacts patient care outcomes positively by translating evidence into clinical practice. The focus will be on recognizing problems, using problem-solving approaches to examine problems, and tirelessly searching for appropriate solutions to address identified gaps in clinical practice.

Project Manager

The creation of the CPG allowed me to be a project manager and demonstrate my leadership ability as it relates to the AACN DNP Essential II: Organizational and Systems Leadership for Quality Improvement and Systems Thinking (AACN, 2006). My previous degrees of MSN in Nursing Management and Leadership and MHA through Walden University provided the leadership knowledge base needed to manage this project from beginning to end. While this was the first opportunity for me to be manager for an entire project, the knowledge

gained from prior degrees, the DNP journey, and previous work experience provided the framework for a successful DNP project that is applicable to the clinical setting.

Summary

The goal of this project was to identify a gap in practice and develop an evidence based CPG to address the identified gap. This guideline could be placed into clinical practice and have a positive effect on overall project site patient/resident outcomes and readmission rates. The journey traveled during the DNP process provided this advanced practice clinician with the leadership experience and knowledge to have a positive impact on care outcomes and overall social change. While this is the terminal degree for my educational process, I plan to continue with life-long learning through continuing education and advanced certifications in my specialty area. During this continued journey, I will share my knowledge and cultivate the next generation of leaders to expand their knowledge base through role model behavior.

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Appendix A: Literature Review Matrix

Author/Date /Title	Level of Evidence	Analysis	Conclusions	Implications for Practice
Doody, C. & Doody, O. (2011). Introducing evidence into nursing practice: using the IOWA model.	Expert opinion based on scientific evidence: Level IV	Informational article regarding the IOWA model and introducing evidence into practice.	Provides a basic framework and offers practical advice for nurses to reference to introduce, develop and evaluate EBP.	This model promotes staff to question current practice and whether it can be improved through the use of current research finding contributing to improved quality and outcomes.
IOWA Model Collaborativ e. (2017). Iowa model of evidence- based practice: Revisions and validation.	Quasi- experimental survey study of content experts: Level II	600 survey participants evaluated the IOWA model and offered suggestions for a revised model.	End users suggested revisions and attested to the validity of the framework in the practice setting.	The revised IOWA model expanded to include patient engagement and sustaining change which are essential for improving quality, safety and patient experience.
Hoffmann- Eber, W., Siering, U., Neugebauer , E., Brockhaus, A., McGaran, N., & Eikermann, M. (2018). Guideline appraisal with	Quasi- experimental online survey study of content experts: Level II	58 survey participants identified that Domains 3 & 6 had the strongest influence on the two overall assessment questions.	The limitation of the tool is that the appraisers have little guidance on the scoring process. Scoring is very subjective.	The AGREE II tool is the most commonly used tool to appraise clinical practice guidelines. It is suggested that a users' manual include weighted scoring items that show the strongest influence on the two overall

AGREE II: online survey of the potential influence of AGREE II items on overall assessment of guideline quality and recommendation for use.				assessment questions.
Siering, U., Eikermann, M., Hausner, E., Hoffmann-Eber, W., & Neugebauer, E. (2013). Appraisal tools for clinical practice guidelines: A systematic review.	Systematic Review by content experts: Level V	40 appraisal tools identified with a range between three and thirteen quality domains for comparison.	Analysis of appraisal tools revealed that conflicts of interest, norms & values of guideline developers and patient involvement are insufficiently considered.	Clinical practice guideline tools require further evaluation and frequent update to reflect current practice scenarios (patient involvement, etc.).
Halm, M. (2013). Nursing handoffs: Ensuring safe passage for patients.	Clinical evidence review: Level III	7 studies reviewed for the occurrence of standardized change of shift handoff.	Highly reliable handoffs incorporate 3 elements: face to face, 2-way communication; structured templates for information exchange that include minimal essential data; the intentional sharing of	Standardized formats have been shown to improve communication amongst caregivers. The role of standardized handoffs cannot be overemphasized and usage promotes high reliability.

			problems and hypotheses based on the clinical situation.	
Mansukhani, R., Bridgeman, M., Candelario, D., & Ecker, L. (2015). Exploring transitional care: Evidence-based strategies for improving provider communication and reducing readmissions.	Opinion of expert pharmacists with specialization in care transitions: Level III	Meta-analysis revealed that less than 35% of the time essential information was transferred to the next provider.	Direct provider communication is essential for smooth transition between health care settings.	Clear and comprehensive provider-patient communication across the healthcare continuum is essential and standardized universal transfer tools remove communication barriers.
Luu, N., Pitts, S., Petty, B., Sawyer, M., Dennison-Himmelfarb, C., Boonyasai, R., & Maruthur, N. (2015). Provider-to-provider communication	Systematic review of literature: Level III	Twenty article evaluated direct provider to provider communication regarding the transition of patients from outpatient to acute care with three focusing on its association to readmission.	Only six of the studies evaluated outcomes associated with provider to provider communication. Providers verbalized high satisfaction with the improved communication but no significant decrease in	There is sparse literature available regarding the transfer of patients from outpatient to acute care. This area needs further research.

ion during transitions of care from outpatient to acute care: A systematic review.			readmission rates.	
Jusela, C., Struble, L., Gallagher, N., Redman, R., & Ziemba, R. (2017). Communication between acute care hospitals and skilled nursing facilities during care transitions.	Retrospective records review by content experts: Level II	150 records were reviewed utilizing an audit tool and greater than 65% of the time, a piece of essential information was missing.	Healthcare providers play an important role in bridging the gap during transitions of care. Discharges should not be viewed as the end of their obligation but the opportunity to promote a safe transition.	There is a need for education and training for health care providers both LTC and acute care regarding information exchange during transitions in care.
Bucknall, T., Hutchinson, A., Botti, M., McTier, L., Rawson, H., Hewitt, A., McMuray, A., Marshall, A., Gillespie, B., & Chaboyer. (2016). Engaging	Integrative review of both quantitative and qualitative evidence by content experts: Level III	Peer reviewed article describing research synthesis process and data analysis in the development of a protocol for engaging patients and families during transitions of care.	Integrative review will identify enablers and barriers to patient and family participation in care transitions.	The findings of the review could prompt recommendations for future healthcare improvements to assist patients and families in engaging during care transitions.

patients and families in communication across transitions of care: an integrative review protocol.				
Jackson, P., Biggins, M., Cowan, L., French, B., Hopkins, S., & Uphold, C. (2016). Evidence summary and recommendations for improved communication during care transitions	Literature Review: Level V	Literature review of 9 articles using multiple search terms focusing on communication during transitions in care.	Overwhelmingly, communication was identified as being the key element to successful handoff to include active listening, thorough documentation and detailed verbal interaction.	Improved communication amongst caregivers during transitions can improve outcomes.
Radhakrishnan, K., Jones, T., Weems, D., Knight, T., & Rice, W. (2018). Seamless transitions: Achieving patient safety through communication and collaboration.	Case report: Level V	Peer reviewed article describing the implementation of a TRansitions Across Care Settings (TRACS) program in a 7 hospital system to include post-acute and skilled facilities.	Overall positive results after implementation of TRACS program with a decrease in readmissions. Second iteration including 1000 patients is currently in progress.	Promising program that could affect readmissions across the healthcare continuum. Requires leadership support for implementation.
Naylor, M.,	Systematic	Review of three	Poor handoffs	The three

& Keating, S. (2008). Transitional care: Moving patients from one care setting to another.	review of current research: Level II	research based models of care for transitions: community based, within same settings and to/from acute care hospitals.	have been linked to adverse events, high readmission rates, poor outcomes and low patient satisfaction.	reviewed models provide direction for enhancing communication and family support during transitions which improves outcomes.
Registered Nurses Association of Ontario (RNAO). (2014). Care transitions: Clinical best practice guidelines.	Clinical Practice Guideline: Level IV	Evidence based clinical practice guideline created by The Registered Nurses Association in Canada. Twenty Two nurses on the expert panel with Twenty Three key stakeholders involved in the creation of the CPG.	Expert panel completed research and created a CPG to improve the quality of care within the Canadian healthcare system.	Referencing an established CPG with proven outcomes; albeit, in another country; can provide an effective framework for CPG creation/implementation locally or regionally in the future.
Rosenfeld, R., & Shiffman, R. (2009). Clinical practice guideline development manual: A quality-driven approach for translating evidence into action	Manual developed by subject matter experts: Level V	Manual developed by subject matter experts on creating CPG's and validating using the AGREE tool.	CPG's are a key metric for delivering quality care. Understanding how to create and implement CPG's can improve care.	Understanding how to create and implement CPG's will be the groundwork for providing high-quality care. This manual provides the foundation for CPG creation.
The Joint Commission (TJC).	Subject matter expert opinion:	Joint Commission Sentinel Event	Suggestions from Internationally recognized	Evaluating current practice and implementing

(2017). Sentinel Event Alert #58, Inadequate hand-off communication.	Level V	Alert publication regarding inadequate hand- off communication.	regulatory agency for improving hand-off communication.	best practice suggestions from regulatory agencies will improve outcomes.
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Appendix B: Nursing Clinical Practice Guideline

CPG Name: Improving Communication During Transition of Care Between Acute Care and Long-Term Care (LTC)/Skilled Facilities

INTRODUCTION

Transition of care refers to the movement of patients between health care settings. This transition of care occurs each time a patient moves between providers within the same setting or between settings as required based on their acute or chronic care needs. An ideal care transition should include the efficient and accurate exchange of information needed to provide high quality continuity of care.

Unfortunately, it is common for avoidable complications and adverse events to occur as a result of ineffective communication or inadequate transfer of information during transitions of care. Poorly executed transitions increase hospital readmissions, create a duplication of services and are the leading cause of medication errors. There is much research available detailing the need for effective communication during transitions of care.

It is common for patients in LTC/Skilled facilities to experience changes in health status requiring multiple transitions of care events as they are transferred to other facilities for treatment. Older adults with medical or mental health problems and/or cognitive and communication deficits are particularly vulnerable during these transition events.

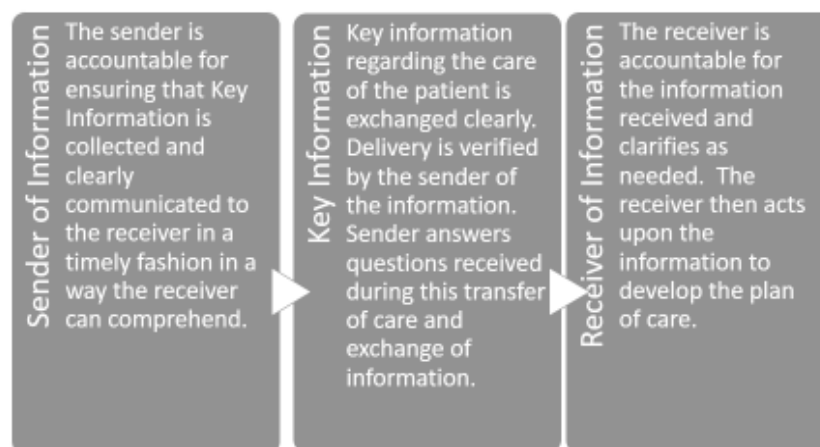
SCOPE & PURPOSE

Clinical Practice Guidelines are systematically developed statements that are used to assist practitioners with clinical practice decision making and application of practice. This guideline should be considered a tool, utilized and applied to enhance decision making and facilitate the safe and effective transition of care for patients transitioning between acute care and LTC/Skilled care. It was created with the assistance of a collaborative group of multidisciplinary key clinical stakeholders, utilizing the most current best practice research data. This guideline should be reviewed and/or revised annually and as needed to reflect updates and/or changes in evidence-based practice related to transitions of care.

CONCEPTUAL MODEL FOR TRANSITIONS OF CARE

The care transition process involves both the sender and receiver of the key information required to ensure safe and effective care transitions.

Provider Accountability During Transitions of Care



INTERPRETATION OF EVIDENCE

This Nursing Clinical Practice Guideline (CPG) is based on a comprehensive review and synthesis of nursing literature and evidence based best-practices. A critical appraisal of available literature provided the most current information related to effective communication during transitions of care.

Level	Evaluation Criteria
I	Evidence from a systematic review or meta-analysis of randomized controlled trials (RCTs).
II	Evidence obtained from at least one well-designed RCT.
III	Evidence obtained from well-designed controlled trials without randomization.
IV	Evidence obtained from at least one other type of well-designed quasi-experimental study without randomization.
V	Evidence obtained from well-designed non-experimental descriptive studies, such as comparative, correlation or case studies.
VI	Evidence obtained from expert opinions, expert committees or clinical experiences of respected authorities.

CLINICAL PRACTICE GUIDELINE RECOMMENDATIONS

Stage	Recommendation	Level of Evidence
Assessment	<ol style="list-style-type: none"> 1. Assess the care needs and requirements of the patient/resident on admission and frequently during the course of treatment to identify changes in status that may require either a planned or emergent care transition. 2. This is an on-going process that occurs daily and as needed to ensure adequate provision of care. 	I
	<ol style="list-style-type: none"> 1. Assess the patient/resident progress with achieving the goals of the plan of care and their readiness for the planned care transition. 2. Assessment includes observation of physical, psychological, spiritual and cognitive factors for indicators of readiness to change and ability to cope with a care transition. 3. Emergent transitions from LTC/Skilled to acute care or within the acute care environment may not provide the opportunity to assess the patients' readiness or ability to cope with a care transition. 	III
Planning	<ol style="list-style-type: none"> 1. Collaborate with the patient, their family and the multidisciplinary care team to develop an appropriate plan to ensure the patient/resident is prepared and able to cope with a care transition. 2. Ensure plans are structured and tailored to meet the needs of the patient and their families. Plans should focus on enhancing the information exchange which will contribute to reducing both the length of stay and the readmission risk. The plan for the care transition will be different for each patient based on their status and their destination. 3. Suggest implementation of a daily multidisciplinary care rounding team which promotes collaboration amongst care providers and allows the opportunity for frequent communication of the status and needs 	I

	<p>of the patient.</p> <p>4. Emergent transitions from LTC/Skilled to acute care or within the acute care environment may not provide the opportunity for planning.</p>	
Implementation	<p>1. Educate the patient, family and multidisciplinary care team about the upcoming care transition daily during care rounding. Literature suggests that the strongest predictor of a patient's readiness for transition rests in the quality of teaching.</p> <p>2. Factors to consider when educating the patient and family include evaluating the following abilities and barriers: physical, spiritual, emotional, social, and developmental along with cultural and ethical beliefs. Language proficiency and health literacy should also be considered during the education process.</p>	III
	<p>1. Health information technology is not standardized across the continuum of care. Organizations utilize differing electronic medical records creating a barrier for information reference and exchange. Suggest utilization of standardized documentation tools and communication strategies to ensure clear and timely exchange of information during care transitions.</p> <p>2. Care transitions are highly complex processes and ineffective information exchange promotes adverse outcomes. Consulting the communication conceptual model while utilizing standardized organizational checklists, algorithms and/or a universal transfer form will ensure the efficient and effective communication of information during the care transition.</p> <p>3. Hardwiring a standardized approach will facilitate information exchange before, during and after care transitions resulting in decreased adverse outcomes and reduced risk of readmission.</p>	IV
	<p>1. Complete a thorough medication reconciliation before and after any care transition using a structured</p>	

	<p>and systematic process that includes the reason for the medication, the dose, the frequency, the route of administration, and when the last dose of medication was given.</p> <p>2. Utilize all available resources during the medication reconciliation process to include the patient/resident, their family members, all applicable healthcare providers and both acute care and retail pharmacy providers. Document all prescription and non-prescription medications to include vitamins, supplements and herbal remedies. Utilization of a standardized documentation tool is recommended.</p>	II
Evaluation	<p>1. Evaluate the effectiveness of information exchange during care transitions.</p> <p>2. Evaluating to determine possible communication barriers is essential to maintain continuity of care across the continuum.</p> <p>3. Identified barriers should be addressed as quality improvement initiatives.</p> <p>4. Suggest implementing a standardized audit tool and reporting results as a quality indicator.</p>	IV
Organizational Education and Policy	<p>1. Provide the multidisciplinary care team with evidence-based initial and continuing education for managing care transitions.</p>	IV
	<p>1. Establish care transitions as an organizational strategic priority and include care transitions as a quality measure.</p> <p>2. Develop and implement standardized policies and processes for care transitions.</p>	III

**ESSENTIAL INFORMATION THAT SHOULD ACCOMPANY EVERY
TRANSITIONING PATIENT/RESIDENT**

- Patient name & date of birth
- Past Medical/Surgical history & primary diagnosis for admission along with any new diagnoses arising during course of treatment
- Complications experienced during course of treatment
- Consultants utilized during course of treatment
- Surgical procedures performed during course of treatment
- Accurate medication list
- Allergies (medication, food, environmental)
- Current vital signs
- Copies of History & Physical and advance directives including resuscitation status
- Identified spiritual needs
- Name and contact information for the following:
 - Sending facility
 - Responsible practitioner at sending and receiving care site
 - Responsible family member and or healthcare power of attorney
- Barriers to communication
 - Language comprehension – primary spoken language
 - Vision and/or hearing impairments
 - Health literacy issues that may create a communication barrier
 - Cognitive issues that impair decision making
- Reason for transfer along with any acute changed from baseline status
- Medical devices, external lines and/or wounds present
- Isolation status
- Immunization status during flu season
- Significant test results including any pending results
- Patients mobility status, need for mobility devices, fall risk status, falls within the last 6 months
- Patients ability to feed self and any dietary needs
- Bladder and/or bowel trained or incontinent – last bowel movement
- Current weight if available
- Anticipated treatment goals at time of transition
 - Return to previous status and/or change in level of care need
 - Palliative care/hospice

Appendix C: AGREE II Appraisal Instrument and Instructions

Instructions for using the AGREE II tool:

The Appraisal of Guidelines for REsearch & Evaluation (AGREE) II Appraisal Instrument is used to assess the methodological rigour and transparency of a developed Clinical Practice Guideline. It is a 23 items tool comprising six quality domains plus two questions to assess the overall quality of the guideline.

1. Quality domains:

1. *Scope and Purpose* (items 1-3) is concerned with the overall aim of the guideline, the specific clinical questions and the target patient population.
2. *Stakeholder Involvement* (items 4-6) focuses on the extent to which the guideline represents the views of its intended users.
3. *Rigour of Development* (items 7-14) relates to the process used to gather and synthesize the evidence, the methods to formulate the recommendations and update them.
4. *Clarity of Presentation* (items 15-17) deals with the language and format of the guideline.
5. *Applicability* (items 18-21) pertains to the likely organizational, behavioral and cost implications of applying the guideline.
6. *Editorial Independence* (items 22-23) is concerned with the independence of the recommendations and acknowledgement of possible conflict of interest from the guideline development group.

2. Overall Guideline Assessment Ratings:

a. Rate the overall quality of this guideline.

b. I would recommend this guideline for use.

3. Rating Scale: All AGREE II domains are rated on a 7 point scale.

a. A score of 1 should be given when there is no information relevant to the AGREE II item or it doesn't meet criteria.

b. A score of 7 should be given if the information relevant to the AGREE II item is exceptional and meets criteria.

c. A score between 2 and 6 is assigned depending on the completeness and quality of reporting. As more criteria are met the score increases.

4. How to rate: Rating require individual judgment specific to each item based on operational definitions and considerations. The more considerations taken into account during the guideline development, the higher the score assigned.

5. Number of appraisers: At least 2 appraisers are required to appropriately assess the guideline. The preferred number of appraisers is 4 as it will increase the reliability of the evaluation of the guideline.

6. Please complete each assessment item as it relates to the Improving Communication During Transitions of Care Clinical Practice Guideline and return the completed assessment to the guideline developer within 10 days.

AGREE II INSTRUMENT

Domain 1: Scope & Purpose

1. The overall objectives of the guideline are specifically described.

1	2	3	4	5	6	7
Strongly Disagree						Strongly Agree

2. The health questions covered by the guideline are specifically described.

1	2	3	4	5	6	7
Strongly Disagree						Strongly Agree

3. The population to whom the guideline is meant to apply is specifically described.

1	2	3	4	5	6	7
Strongly Disagree						Strongly Agree

Comments:

Domain 2: Stakeholder Involvement

4. The guideline development group includes individuals from all relevant professional groups.

1	2	3	4	5	6	7
Strongly Disagree						Strongly Agree

5. The views and preferences of the target population have been sought.

1	2	3	4	5	6	7
Strongly Disagree						Strongly Agree

6. The target users of the guideline are clearly defined.

1	2	3	4	5	6	7
Strongly Disagree						Strongly Agree

Comments:

--

Domain 3: Rigour of Development

7. Systematic methods were used to search for evidence.

1	2	3	4	5	6	7
Strongly Disagree						Strongly Agree

8. The criteria for selecting the evidence are clearly described.

1	2	3	4	5	6	7
Strongly Disagree						Strongly Agree

9. The strengths and limitations of the body of evidence are clearly described.

1	2	3	4	5	6	7
Strongly Disagree						Strongly Agree

10. The methods for formulating the recommendations are clearly described.

1	2	3	4	5	6	7
Strongly Disagree						Strongly Agree

11. The health benefits, side effects, and risks have been considered in formulating the recommendations.

1	2	3	4	5	6	7
Strongly Disagree						Strongly Agree

12. There is an explicit link between the recommendations and the supporting evidence.

1	2	3	4	5	6	7
Strongly Disagree						Strongly Agree

13. The guideline has been externally reviewed by experts prior to its publication.

1	2	3	4	5	6	7
Strongly Disagree						Strongly Agree

14. A procedure for updating the guideline is provided.

1	2	3	4	5	6	7
Strongly Disagree						Strongly Agree

Domain 4: Clarity of Presentation

15. The recommendations are specific and unambiguous.

1	2	3	4	5	6	7
Strongly Disagree						Strongly Agree

16. The different options for management of the condition or health issue are clearly presented.

1	2	3	4	5	6	7
Strongly Disagree						Strongly Agree

17. Key recommendations are easily identifiable.

1	2	3	4	5	6	7
Strongly Disagree						Strongly Agree

Comments:

<p>Comments:</p>

Domain 5: Applicability

18. The guideline describes facilitators and barriers to its application.

1	2	3	4	5	6	7
Strongly Disagree						Strongly Agree

19. The guideline provides advice and/or tools on how the recommendations can be put into practice.

1	2	3	4	5	6	7
Strongly Disagree						Strongly Agree

20. The potential resource implications of applying the recommendations have been considered.

1	2	3	4	5	6	7
Strongly Disagree						Strongly Agree

21. The guideline presents monitory and/or auditing criteria.

1	2	3	4	5	6	7
Strongly Disagree						Strongly Agree

Domain 6: Editorial Independence

22. The views of the funding body have not influenced the content of the guideline.

1	2	3	4	5	6	7
Strongly Disagree						Strongly Agree

23. Competing interests of guideline development group members have been recorded and addressed.

1	2	3	4	5	6	7
Strongly Disagree						Strongly Agree

Comments:

Overall Guideline Assessment

1. Rate the overall quality of this guideline.

1	2	3	4	5	6	7
Strongly Disagree						Strongly Agree

2. I would recommend this guideline for use.

Yes	
Yes, with modifications	
No	

Comments:

--

Appendix D: Experts Panel Rating of Clinical Practice Guideline Domains

Domain 1: Scope and Purpose

1. The overall objectives of the guideline are specifically described.
2. The health questions covered by the guideline are specifically described.
3. The population to whom the guideline is meant to apply is specifically described.

Appraiser	Item 1	Item 2	Item 3	Total
1	7	6	7	20
2	7	6	7	20
3	7	4	5	16
4	7	7	7	21
5	7	7	7	21
Total	35	30	33	98

Maximum possible score: $7 \times 3 \times 5 = 105$

Total overall score: 98

Calculation: $98/105 = 0.9333 \times 100 = 93\%$

Final score: 93%

Domain 2: Stakeholder Involvement

1. The guideline development group includes individuals from all relevant professional groups.
2. The views and preferences of the target population have been sought.
3. The target users of the guideline are clearly defined.

Appraiser	Item 4	Item 5	Item 6	Total
1	7	6	7	20
2	6	6	6	18
3	7	5	7	19
4	7	7	7	21
5	6	6	7	19
Total	33	30	34	97

Maximum possible score: $7 \times 3 \times 5 = 105$

Total overall score: 97

Calculation: $97/105 = 0.9238 \times 100 = 92\%$

Final score: 92%

Domain 3: Rigour of Development

1. Systematic methods were used to search for evidence.
2. The criteria for selecting the evidence are clearly described.
3. The strengths and limitations of the body of evidence are clearly described.
4. The methods for formulating the recommendations are clearly described.

Appraiser	Item 7	Item 8	Item 9	Item 10	Item 11	Item 12	Item 13	Item 14	Total
1	7	6	6	7	7	6	7	7	53
2	7	7	7	6	7	6	6	6	52
3	7	6	7	6	6	6	5	7	50
4	7	7	7	7	7	7	7	7	56
5	7	7	6	7	6	7	7	6	53
Total	35	33	33	33	33	32	32	33	264

Maximum possible score: $7 \times 8 \times 5 = 280$

Total overall score: 264

Calculation: $264/280 = 0.9429 \times 100 = 94\%$

Final score: 94%

Domain 4: Clarity of Presentation

1. The recommendations are specific and unambiguous.
2. The different options for management of the condition or health issue are clearly presented.
3. Key recommendations are easily identifiable.

Appraiser	Item 15	Item 16	Item 17	Total
1	7	6	7	20
2	6	5	7	18
3	7	5	7	19
4	7	7	7	21
5	7	7	7	21
Total	34	30	35	99

Maximum possible score: $7 \times 3 \times 5 = 105$

Total overall score: 99

Calculation: $99/105 = 0.9428 \times 100 = 94\%$

Final score: 94%

Domain 5: Applicability

1. The guideline describes facilitators and barriers to its application.
2. The guidance provides advice and/or tools on how the recommendations can be put into practice.
3. The potential resource implications of applying the recommendations have been considered.
4. The guideline presents monitory and/or auditing criteria.

Appraiser	Item 18	Item 19	Item 20	Item 21	Total
1	6	6	6	7	25
2	6	6	6	6	24
3	6	6	6	6	24
4	7	7	7	7	28
5	6	6	7	6	25
Total	31	31	32	32	126

Maximum possible score: $7 \times 4 \times 5 = 140$

Total overall score: 126

Calculation: $126/140 = 0.900 \times 100 = 90\%$

Final score: 90%

Domain 6: Editorial Independence

1. The views of the funding body have not influenced the content of the guideline.
2. Competing interests of guideline development group members have been recorded and addressed.

Appraiser	Item 22	Item 23	Total
1	7	7	14
2	6	6	12
3	7	7	14
4	7	7	14
5	7	7	14
Total	34	34	68

Maximum possible score: $7 \times 2 \times 5 = 70$

Total overall score: 68

Calculation: $68/70 = 0.9714 \times 100 = 97\%$

Final score: 97%

Overall Guideline Assessment

1. Rate the overall quality of this guideline.

Appraiser	Overall
1	6
2	6
3	6
4	7
5	7
Total	32

Maximum possible score: $7 \times 5 = 35$

Total overall score: 32

Calculation: $32/35 = 0.9142 \times 100 = 91\%$

Final score: 91%

2. I would recommend this guideline for use.

Appraiser	Yes	Yes with modification	No
1	X		
2	X		
3	X		
4	X		
5	X		

Additional Comments:

Appraiser	
1	No additional comments.
2	Purpose is specifically attained. Would love seeing this in practice.
3	Could use more definition for process. Option to interview patients and families for their perspectives.
4	Items that would enhance guideline are: recent bowel movement, fall history within past 6 months. Physician to physician hand-off suggested to improve transitions. Overall minor suggestions to an otherwise excellent guideline.
5	Aim of guideline, clinical concerns & target population clearly identified. Stakeholders have been consulted and considered. Clear and easy to follow. It is very practical and research based. Very well done, comprehensive and could be easily implemented into practice. Also would be easily revisable as use would dictate.

Appendix E: Permission to Use IOWA Model

From: Kimberly Jordan - University of Iowa Hospitals and Clinics <noreply@qualtrics-survey.com>
Sent: Sunday, June 10, 2018 12:19 PM
To: Hardy, Darla
Subject: Permission to Use The Iowa Model Revised: Evidence-Based Practice to Promote Excellence in Health Care

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doi:10.1111/wvn.12223

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